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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,888	09/01/2000	Thomas Anthony Cofino	YOR920000607US1	5996

7590 01/21/2004

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EXAMINER	
RHODE JR, ROBERT E	

ART UNIT	PAPER NUMBER
3625	

DATE MAILED: 01/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/653,888	COFINO ET AL.	
	Examin r	Art Unit	
	Rob Rhode	3625	

-- The MAILING DATE of this communication appears on the cover sh et with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1, 3 – 9, 11 – 20 and 22 - 36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3 – 9, 11 – 20 and 22 - 36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

Applicant amendment of 12/9/2003 amended claims 1, 3, 5, 14, 15, 16, 17, 19, 20 and added new claims 22 – 36. In addition, applicant canceled claims 2 and 10 as well as traversed rejections of Claims 1, 3 – 9, and 11 - 20.

Currently, claims 1, 3 – 9, 11 – 20 and 22 - 36 are pending.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3 – 9, 11 – 20 and 22 - 36 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 - 20 of copending Application No. 09/654,202. Although the conflicting claims are not identical, they are not patentably distinct from each other because they address

online shopping, use of server logs and micro-conversions techniques comprising a parallel coordinate method and one or more extension components.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 4 – 7, 9, 11, 12, 14 – 20 and 22 – 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wenig (US 6,286,030 B1) in view of Yaginuma (US 6,477,538 B2).

Regarding claim 1 (Currently Amended) and related claims 23 (New) and 30 (New), the combination of Wenig and Yaginuma teaches a method of graphically representing clickstream data of a shopping session on a network comprising: where Wenig teaches extracting one or more shopping sessions from one or more Web server logs of one or more Web server systems of one or more online stores (see at least Abstract and Col 4, lines 27 – 40); deriving one or more micro-conversions from the one or more shopping sessions, the micro-conversion comprising a shopper's conversion from one shopping step to another (see at least Col 5, lines 3 – 13). Regarding claim 4 (Currently Amended), Wenig teaches a method, where the clickstream data is a collection of micro-conversions of one or more shoppers for at least one of products and services

sold in at least one online store (see at least Abstract, Col 5, lines 3 – 13) and (20) further comprising modifying at least one of Web design, navigation paths of the online store, advertisement banners, product layouts, service layouts, marketing and merchandising based on at least one of the visualizations (Col 2, lines 1 – 12). Additionally and regarding claim 29 (New) and related claim 36 (New), Wenig teaches a method wherein the graphical representation is provided to the user over a network (Col 1, lines 42 – 47).

However, Wenig does not specifically disclose and teach graphically representing clickstream data from one or more micro-conversions in a first visualization, the first visualization comprising at least three axes representing shopping steps and one or more lines that each correspond to at least one said shopping session at least one of the one or more lines intersecting less than all of the axes and terminating at the axis wherein the at least one said shopping session ends.

On the other hand, Yaginuma does teach graphically representing clickstream data from one or more micro-conversions in a first visualization, the first visualization comprising at least three axes representing shopping steps and one or more lines that each correspond to at least one said shopping session at least one of the one or more lines intersecting less than all of the axes and terminating at the axis wherein the at least one said shopping session ends (see at least Abstract, Col 2, lines 13 – 43, Col 7, lines 1 – 11, Col 12, lines 25 – 27 and Figures 19, 21 and 32). As noted in the previous rejection,

Wenig does teach the capture of clickstream data associated with the shopping steps in a web log (i.e. database). In turn, Yaginuma provides the method and system to extract this data/clickstream data - from Wenig and display to a user via a visualization technique comprising at least three axes. Moreover, the Yaginuma reference is much more robust and not limited to the just the examples provided (see at least Col 2, lines 13 – 44 and Col 4, lines 54 – 57). For example and as defined by Yaginuma (see at least Figures 4, 5 and 6), the user can define the axes via the field items - such as shopping steps and in turn the clickstream data representing each shopper (i.e. replace "model" in the matrix) can be utilized as well to connect the data points represented by clickstream data extracted from Wenig - on each axes. Additionally, Yaginuma does teach that when a field is not detected, then a connecting data point cannot be assigned and it is implicit that the line would "drop out" at that point on the axis (Figure 32). As importantly, the data captured as taught by Wenig can only represent clickstream data, which is stored in the web server log/database. Further and as taught by Wenig, clickstream data *can not* be captured and stored - if a clickstream data at that point/sequence in a shopping session does not occur. In this manner, the dependent and sequential data captured by the method and system of Wenig as the shopper clicks on the next step (i.e. micro-conversions) in the buying process provides the data used by the method and system of Yaginuma to graphically represent the clickstream data from the micro conversions (i.e. shopping steps) to a first visualization with at least three axes. Furthermore, the concept of using the method and system of Yaginuma in an online e-business solution is further taught in the article "Westaim technology

investment, Savvion, partners with Fujitisu to build smarter e-business solutions" PR Newswire; New York; August 11, 2000. Thereby, it would have been obvious to one of ordinary skill in that art at the time of the invention to have provided the method and system of Wenig with the method and system of Yaginuma – in order to graphically represent data to meet users requirements with the capability to "drop out" the line at the point on the axis of Yaginuam where no data (i.e. clickstream data) has been captured. Moreover:

regarding claim 5 (Currently Amended), Yaginuma teaches a method, where the first visualization comprises a parallel coordinate system and one or more extension components including one or more parallel axes of sequential events, one or more dependent variable values of one or more filters, one or more timestamps, categorizers, and one or more hyperlink associations (see at least Col 5, lines 56 – 67 and Figures 1 – 3). Please note that the sequential events as taught by Wenig are shopping steps in an e-commerce environment (see at least Col 5, lines 6 – 13) and at each step (i.e. micro-conversion) of the online shopping process clickstream data is captured (Figures 1 and 2). In turn, the method and system of Yaginuma teach a method and system to provide a visualization comprising one or more parallel axes by extracting the stored data of Wenig and visually presenting this data sequentially as noted above in claim 1. While the applicant argues the Yaginuma's reference only addresses dependent data provided by the categorizer, the references as addressed above in combination does provide the capability to visually presented the dependent data/clickstream data as

taught by Wenig on at least three axes and as taught by Yaginuma. In that regard and addressed above, Wenig teaches the capture and storing of the clickstream data and in turn Yaginuma visually presents the sequential data, which is dependent upon the shopper actively selecting the next appropriate step in the process. For example, if the shopper did not click/select the next step in the shopping process, there would not be any data/clickstream data to capture at the predefined axes point available for the method and system of Yaginuma. Thereby, the depended/sequential data is extracted from the database (of Wenig) and as taught by Yaginuma the steps/defined by each axis will be correctly represented the sequential steps and dependent steps in the online shopping process (see at least Figures 1 - 5 and Col 2, lines 20 – 23). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the method and system of Wenig with the method and system of Yaginuam to have enabled the first visualization to comprises a parallel coordinate system and one or more extension components including one or more parallel axes of sequential events, one or more dependent variable values of one or more filters – in order to display the events and select steps for each online shopper.

regarding claim 6 (Previously Amended), Yaginuam teaches where the parallel coordinate system comprises a series of parallel lines that are placed equidistantly, each parallel line representing a specific dependent variable and dependent variable values being plotted along a respective axis, and an independent variable that is represented by polygonal lines connecting the corresponding dependent variable values

(see at least Abstract, Col 1, lines 16 – 43, Col 6, lines 30 – 34 and Col 12, lines 24 – 27 and Figures 6 and 19) and (7 Original) where the parallel axes of sequential events is an assignment of a series of sequential events to parallel lines in a parallel coordinate system (Col 7, lines 25 – 28).

regarding claim 9 (Original), Yaginuam teaches a method, where the dependent variable values of timestamps is an assignment of timestamp values as data points to a series of sequential events that are assigned to the equal number of parallel axes in a parallel coordinate system (Col 12, lines 20 – 30 and Figure 33).

regarding claim 11 (Previously Amended), Yaginuam teaches a method, where the filter is a means to select one or more groups of polygonal lines viewed in the parallel coordinate system (Col 7, lines 19 – 29 and Figures 32 and 35).

Regarding claim 12 (Previously Amended), Yaginuam teaches a method, where the categorizer is a parallel axis in the parallel coordinate system for categorizing polygonal lines in the system (Col 5, lines 63 – 67 and Figures 1 – 6 and 19).

Regarding claim 14 (Currently Amended) and related claims 18 (Previously Amended) and claims 26 and 33 (New), Yaginuma teaches a method, where the hyperlink association is association of at least one hyperlink with the line representing a session, and the line comprises a hyperlink to a Web page that provides additional information of

the session. The applicant argues that the references do not provide a prima facia case for the use of hyperlinks. However, Yaginuma does disclose and teach clicking on desired points for additional information (see at least Col 7, lines 25 – 28). Further, Wenig teaches the capture of storing of a users session and all actions taken during the e-commerce session (see at least Col 5, lines 1 – 13). Moreover, it was old and well known in the art at the time of the applicant's invention that hyperlinks were used in providing a web page with additional information regarding the shopping session. For example, Hunt (US 6,223,215 B1) and Leshem (US 6,470,383 B1) are references that either refer to or specifically site hyperlinks. In that regard, it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided hyperlinks in the method of Yaginuma to enable an analyst as define by the Wenig reference to click on the line, which can be a hyperlink - in order to view to gain further insight into the sequence of screens seen by the shopper.

regarding claim 15 (Currently Amended) and related claim 24 (New) and 31 (New), Yaginuam teaches a method, wherein at least the first visualization represents, via dropouts of one or more lines, where the online store loses customers (see at least Figure 32 and arguments of claim 1 regarding "dropouts").

regarding claim 22 (New), Yaginuma teaches a method further comprising: graphically representing one or more variations of the clickstream data in at least one alternate visualization in response to a request (Col 2, lines 13 – 44 and Figures 6, 7 and 9);

storing at least one of the first and the altemate visualizations in at least one computer memory (Col 6, lines 1 – 7 and Figure 53); retrieving at least one of the first and the alternate visualizations from the at least one computer memory (Col 6, lines 1 – 7 and Figures 52 and 53); and graphically comparing at least two of the first and the alternate visualizations retrieved from the at least one computer memory (Col 6, lines 1 – 7 and Figure 19).

regarding claim 16 (Currently Amended), Yaginuma teaches a method, wherein the at least one alternate visualization comprises a filter for selecting at least one group of sessions (Figure 32).

regarding claim 17 (Currently Amended), Yaginuma teaches a method, wherein the at least one alternate visualization comprises sessions of different shoppers categorized by one or more values of a categorizer axis, as compared to the first visualization (Figures 1 – 4 and 19 – 21).

regarding claim 19 (Currently Amended), Yaginuma teaches a method, further comprising displaying a stored visualization representing a first time and a stored visualization representing a second time (Col 6, lines 1 – 7 and Figures 6 and 7).

regarding claim 25 (New), Yaginuma teaches a method further including: receiving over the network data relating to a second virtual path that one or more other customers

followed through one or more online stores; wherein the means to visualize further comprises a graphical representation of the second virtual path as a second line that intersects all of the axes (Figures 1 – 6).

regarding claim 27 (New) and related claim 34 (New), Yaginuma teaches a method further comprising providing the user with one or more filters by which to dynamically change the graphical representation (Figures 6 and 7).

regarding claim 28 (New) and related claim 35 (New), Yaginuma teaches a method wherein the filter dynamically changes the graphical representation based on at least one of the following aspects of the virtual path: hierarchical browsing, keyword search, parametric search, and recommendations (Figures 1 – 4).

regarding claim 32 (New), Yaginuma teaches a system wherein the clickstream data further represents a second virtual path that a separate one or more third parties followed through the internet, and wherein the means to visualize further comprises a graphical representation of the second virtual path as a second line plotted against the axes (Figures 1 – 7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the method and system of Wenig with the method and system of Yaginuma to have enabled a method of graphically representing clickstream data of a

shopping session on a network comprising: extracting one or more shopping sessions from one or more Web server logs of one or more Web server systems of one or more online stores; deriving one or more micro-conversions from the one or more shopping sessions, the micro-conversion comprising a shopper's conversion from one shopping step to another; graphically representing clickstream data from one or more micro-conversions in a first visualization, the first visualization comprising at least three axes representing shopping steps and one or more lines that each correspond to at least one said shopping session at least one of the one or more lines intersecting less than all of the axes and terminating at the axis wherein the at least one said shopping session ends - in order to enable the web site owner to more fully understand the areas/pages and online process, which require improvement. This understanding of where improvements are needed is important to pin pointing the enhancements for the site visitor/shopper experience and ease their review of information or enable ease of purchasing products as well as the selection process. In that regard, these improvements will increase customer satisfaction and increase the probability of the individual(s) returning to the site again to purchase or search for additional information as well as recommend the site to others.

Claims 3, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Wenig (US 6,286,030 B1) and Yaginuma (US 6,477,538 B2) as applied to claims 2, 7, 12 and 1 above, and further in view of Hunt (US 6,223,215 B1).

The combination of Wenig and Yaginuma substantially disclose and teach the applicant's invention.

On the other hand, the combination does not specifically disclose and teach where the shopping steps include a product impression that is the a view of a hyperlink to a Web page presenting one of a product or and service, a clickthrough that is a click on the hyperlink and view of the Web page of the product or service, a basket placement that is the a placement of the one of the product and service item in the a shopping basket, and a purchase that is the a purchase of the one of the product and service; where the sequential events include any one or more at least one of the following: one or more steps of shopping in one or more stores, one or more product development steps, and one or more service development steps and where the categorizer includes one or more at least one of the following: the referrer Web sites of sessions, internet service providers of sessions, lengths of sessions, methods used to find product information by sessions, methods used to find service information by sessions, products viewed, services viewed items placed in a shopping cart, items purchased by sessions, time points of sessions, the geographic regions where sessions originated, the ages, sex, education, and income of owners of session originators, sales history of the owners of sessions, and Web page patterns accessed by one of sessions the and owners of sessions.

Regarding claim 3 (Currently Amended), Hunt teaches a method, where the shopping steps include a product impression that is the a view of a hyperlink to a Web page presenting one of a product or and service, a clickthrough that is a click on the hyperlink and view of the Web page of the product or service, a basket placement that is the a placement of the one of the product and service item in the a shopping basket, and a purchase that is the a purchase of the one of the product and service (see at least Col 1, lines 49 – 52, Col 2, lines 18 – 31, Col 8, line 52 and Figure 2).

Regarding claim 8 (Previouslyly Amended), Hunt teaches a method where the sequential events include any one or more at least one of the following: one or more steps of shopping in one or more stores, one or more product development steps, and one or more service development steps (see at least Col 2, lines 18 – 21).

Regarding claim 13 (Previously Amended), Hunt teaches a method, where the categorizer includes one or more at least one of the following: the referrer Web sites of sessions, internet service providers of sessions, lengths of sessions, methods used to find product information by sessions, methods used to find service information by sessions, products viewed, services viewed items placed in a shopping cart, items purchased by sessions, time points of sessions, the geographic regions where sessions originated, the ages, sex, education, and income of owners of session originators, sales history of the owners of sessions, and Web page patterns accessed by one of

sessions the and owners of sessions (see at least Col 2, lines 8 - 20, Col 5, lines 47 – 65 and Figure 3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the combination of Wenig and Yaginuam with the method of Hunt to have enabled where the shopping steps include a product impression that is the a view of a hyperlink to a Web page presenting one of a product or and service, a clickthrough that is a click on the hyperlink and view of the Web page of the product or service, a basket placement that is the a placement of the one of the product and service item in the a shopping basket, and a purchase that is the a purchase of the one of the product and service; where the sequential events include any one or more at least one of the following: one or more steps of shopping in one or more stores, one or more product development steps, and one or more service development steps and where the categorizer includes one or more at least one of the following: the referrer Web sites of sessions, internet service providers of sessions, lengths of sessions, methods used to find product information by sessions, methods used to find service information by sessions, products viewed, services viewed items placed in a shopping cart, items purchased by sessions, time points of sessions, the geographic regions where sessions originated, the ages, sex, education, and income of owners of session originators, sales history of the owners of sessions – in order to in order to more fully understand both the origin of the shopper/visitor and to ensure that the on-line and off-line business processes fully support each shopper/visitors requirements. In this regard, the ease of

purchasing is significantly increased providing the purchaser with a personal and pleasant experience thereby increasing their level of satisfaction with the site as well improving the probability that they will return again. Moreover, it would have provided a better understanding and targeting of advertisement campaigns.

Response to Arguments

Applicant's arguments filed on 12/9/2003 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Additionally, applicant arguments regarding "dropouts" were addressed at claim 1 and arguments regarding dependent/sequential data was addressed at claim 5. Arguments regarding hyperlinks were addressed at claim 14.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rob Rhode whose telephone number is 703.305.8230. The examiner can normally be reached on M-F 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Smith can be reached on 703.308.3588. The fax phone number for the organization where this application or proceeding is assigned is 703.872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.306.1113.

RER

Jeffrey A. Smith
Primary Examiner